



KANSAS ENERGY CONFERENCE

CORBION

Designed by science, powered
by nature and delivered
through dedication.



Robert-Jan de Voogd

Manager Procurement Commodities – Corbion

Robert-Jan de Voogd has been with Corbion for 9 years. He is currently responsible for the procurement of core commodities in North America, which includes energy. Before being based at Corbion's regional head office in Lenexa, Kansas, he was stationed at the company's Thailand plant for 3 years. Prior to that he was located at Corbion's corporate head office in Amsterdam, The Netherlands. Corbion is a biotechnology company; the

global market leader in lactic acid and lactic acid derivatives, and a leading company in emulsifiers, functional enzyme blends, minerals, vitamins and algae ingredients. Corbion aims to power its global operations with 100% renewable power – reaching at least 50% of this goal by 2020.



Jamie Dingley

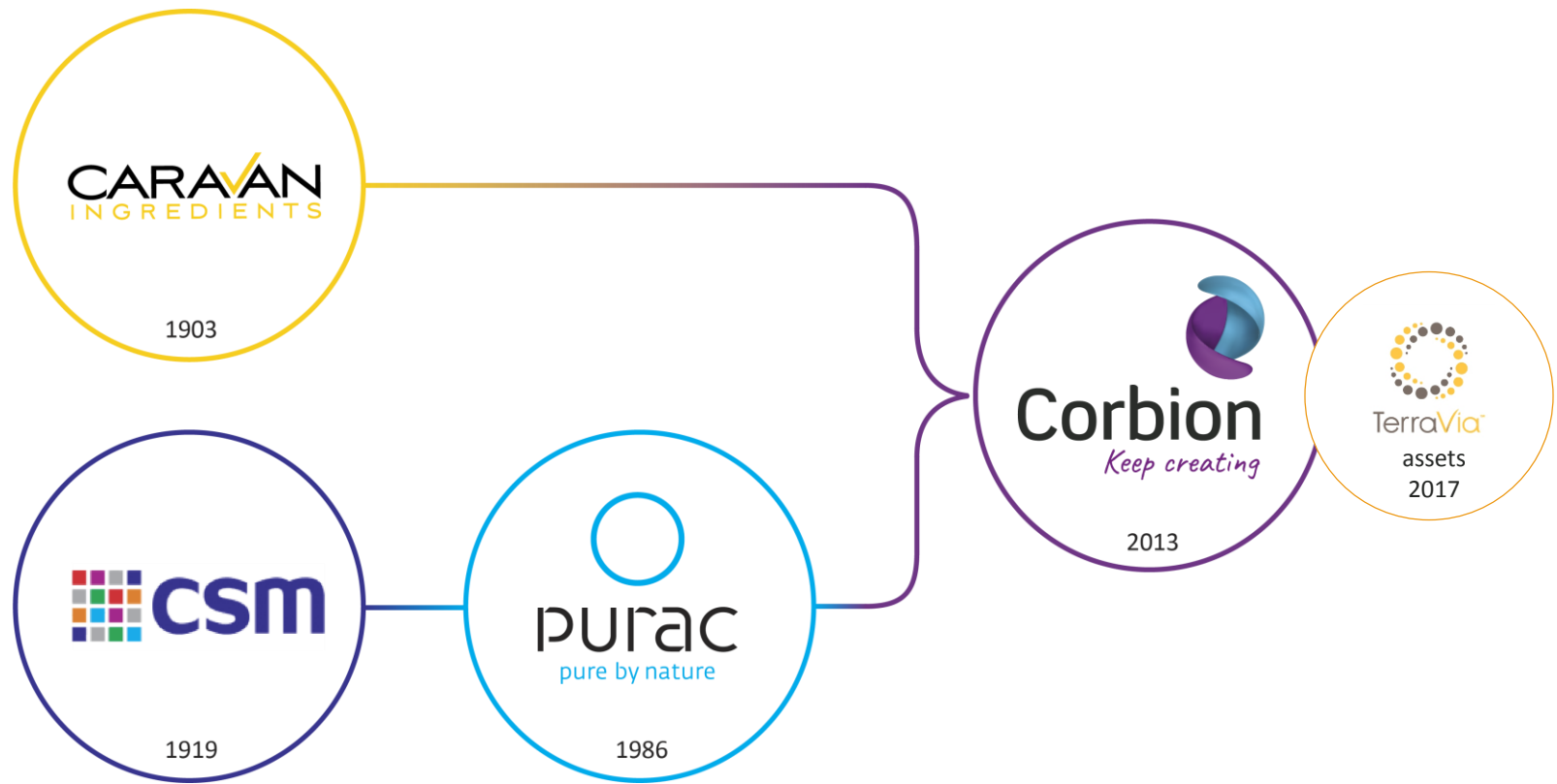
Category Risk Manager II – Corbion

As the category manager of Sugar, Dairy, and Cocoa, Jamie manages price volatility, hedging, contracts, and forecasting throughout the entire supply chain process for his raw materials. His career began in the "Pits" in Chicago and Kansas City, where he was a floor trader specializing in trading wheat, corn, and soybean futures and options. He moved to the energy sector trading Real-Time power and Virtuals for Endure Energy (an Energy Transfer

company) before making his transition back to the agricultural side with Corbion. He currently collaborates on Corbion's Science Based Target initiative and is the project lead on Corbion's Security of Supply initiative. Jamie holds a BS in Economics from Missouri State University and a MA in Economics from the University of Missouri – Kansas City.

Our heritage: the evolution of Corbion

For more than a century, we have been delivering innovative, market-driven solutions to our customers. Built on the solid foundation of Caravan Ingredients and Purac, Corbion offers a wealth of experience and expertise in the world of food ingredients and biobased technologies.



Corbion: Who we are today



Food Ingredients

Provide safe and healthy food for a growing population, while preventing food waste



Biochemicals Ingredients

Provide safe solutions based on renewable materials and resource efficient processes



- Revenue (2017) of € 891.7 M and EBITDA of € 164.1 M
- Around 2000 employees
- Unique technology platform: fermentation of organic acids
- 12 production facilities across the globe

Addressing key global trends



Population growth



Food security



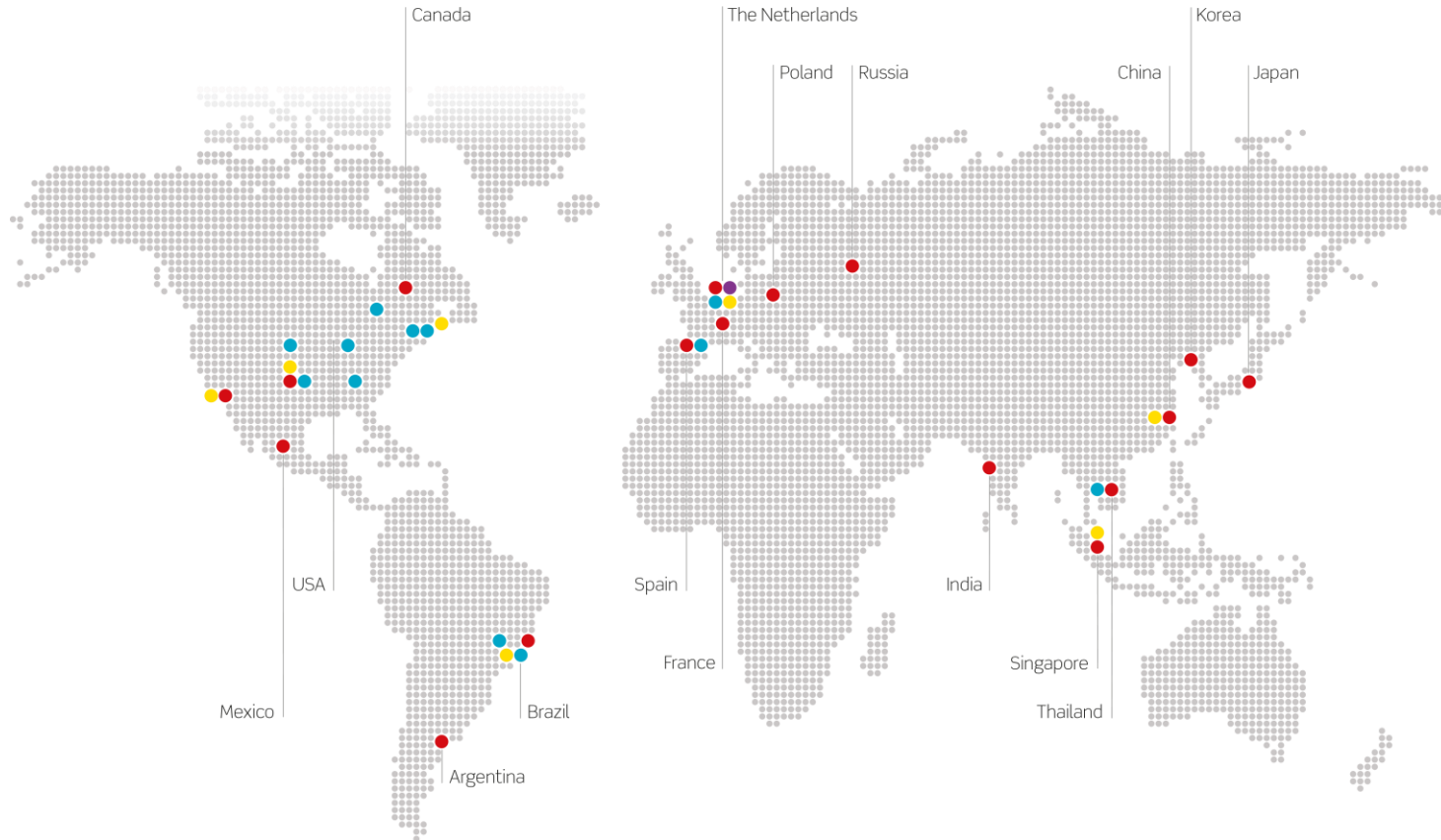
Changing values



Climate change & Resource scarcity

Corbion's global presence

● Corbion Headquarters ● Corbion Production Location ● Corbion Sales Office ● Corbion Innovation Center



We market our products through a worldwide network of sales offices and distributors

Corbion's alignment with the United Nations Sustainable Development Goals

Population growth



Food security



Changing values



Climate change & Resource scarcity



2 ZERO HUNGER



- End hunger
- Food security
- Improved nutrition
- Sustainable agriculture

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



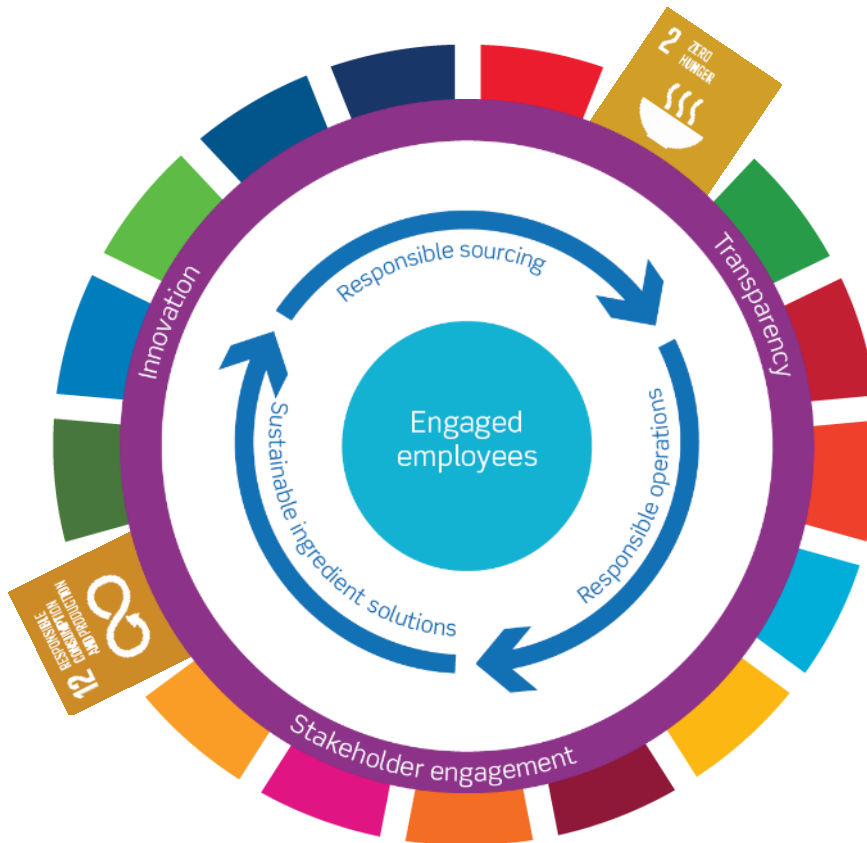
- Reduce, re-use & recycle
- Circular economy
- Reduce food waste
- Minimize environmental impact of chemicals

Corbion's value proposition

Offering conscious choices through sustainable ingredient solutions uniquely tailored to create customer value

Creating a positive impact by growing our business in sustainable ingredient solutions

and maximizing our contribution to zero hunger and responsible production and consumption (SDG 2 & 12)



Ambitions

Responsible sourcing

Create a sustainable supply chain for Corbion's agricultural raw materials.

Responsible operations

Create a zero incident and zero waste Corbion.

Sustainable ingredient solutions

Create solutions based on renewable resources to improve the quality of life for people today and for future generations.

Responsible sourcing

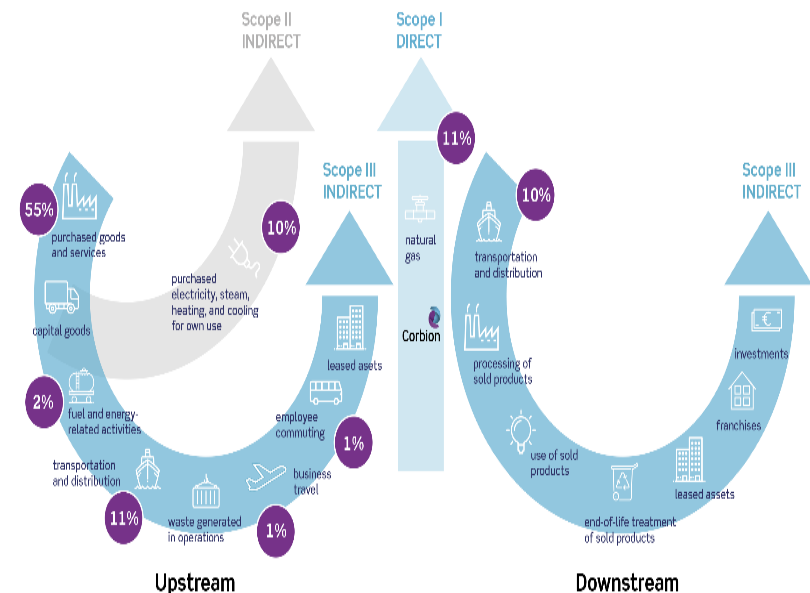
Create a sustainable supply chain for Corbion's agricultural raw materials

● Corbion Production Location



Reduce our carbon footprint in line with the Paris agreement

- In Paris, 195 countries agreed to limit global warming well below 2°C.
- Science Based Targets (SBT) is an initiative by CDP, UN Global Compact, WRI and WWF to bring corporate emission targets in line with the climate goals from the Paris Agreement.
- Corbion joined the Science Based Targets initiative to demonstrate our commitment.
- Corbion will define Science Based Targets for our Scope I, II and III emissions.



Emissions (kton CO2eq)	2016	2017	
Scope I emissions	94	92	-2%
Scope II emissions	93	88	-5%
Scope III emissions	711	691	-3%

Press releases

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Corbion links sustainability performance to interest rate of its new EUR 300 million Revolving Credit Facility

6/29/2018

Corbion today announces that it has signed a new five years syndicated Revolving Credit Facility ("RCF") with an interest rate that will, amongst others, depend on the company's year-on-year sustainability performance improvement.

Interest rate on the RCF is linked to sustainability indicators, measuring the performance of Corbion on a year-to-year basis. The indicators are linked to Corbion's key sustainability initiatives from its Creating Sustainable Growth strategy: Responsible sourcing, Responsible operations and Sustainable ingredient solutions. Based on the progress on these indicators, a discount or premium may apply to the interest rate on the RCF.

"Sustainability is an integral part of Corbion's business operations. Aligning our sustainability ambitions and targets with the Revolving Credit Facility underlines this commitment of Corbion." comments Tjerk de Ruiter, CEO.

The new Revolving Credit Facility (RCF) replaces the company's existing RCF, providing liquidity for general corporate purposes. The facility has a five year initial termination date extending the maturity to [July] 2023, and provides two additional one-year extension options. The RCF is provided by an international syndicate of seven relationship banks.

More information on Corbion's sustainability and financial performance can be found in Corbion's [Annual Report](#).

Responsible operations - Targets

	2020	2030
Safety	Total Rec. Injury Rate < 0.55	Total Rec. Injury Rate < 0.25
Zero waste	Zero by-products to landfill	Zero waste to landfill
Renewable electricity	50% renewable electricity	100% renewable electricity
Carbon footprint		Reduce carbon footprint in line with the Paris climate agreement

Environment, Health and Safety (EHS) Policy

Safety first

Corbion's goal is to create a safe and healthy workplace. No job is so important that it cannot be done safely or without adverse environmental impact. Our aim is to have zero incidents.

We operate with the greatest care for safety, health and the environment for our employees and the communities we engage with. Our activities are supported by a management system that includes policies, procedures, training, and feedback, which ensure that we comply with laws and regulations applicable to our operations and in accordance with our own corporate standards and codes.

Corbion leadership and employees are committed to achieving a zero incident culture and to continuously improve our safety and environmental performance. The Executive Committee of Corbion is ultimately responsible for the implementation of and amendments to this policy looking to a zero incident culture.

All management layers and employees are expected to actively contribute to a safe and healthy working environment, and are responsible and held accountable for compliance with the policy.

Tjerk de Rutter CEO
Marc den Hartog EVP Operations
Amsterdam, May 2016

Our commitment to achieve a zero incident culture is based on our core beliefs:

- Environment, health and safety is everyone's concern
- Safe behaviors prevail over business priorities
- We protect ourselves and our colleagues from unsafe situations
- Everybody should feel free to speak up
- Management leads by example
- Continuous improvement of our EHS performance is essential
- We hold ourselves accountable
- We actively engage with our contractors

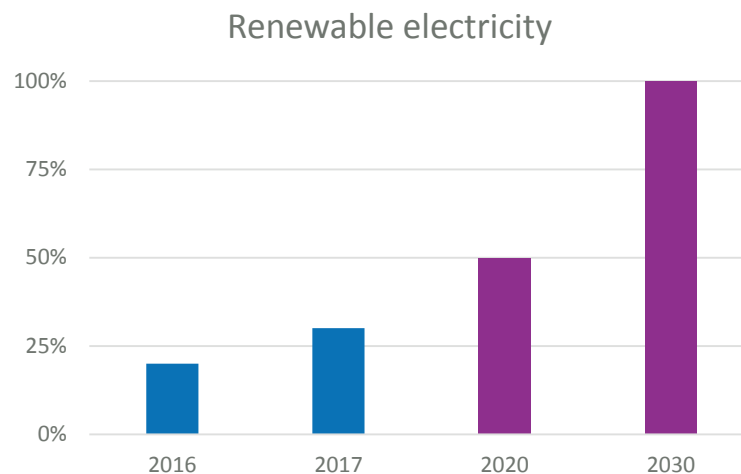
Corbion
The way we think

At Corbion we create a healthy, safe and environmental friendly workplace



Renewable electricity

- Corbion aims to be 100% powered by renewable electricity in 2030, with an interim target of 50% by 2020.
- We combine generation on site with purchasing renewable electricity from our suppliers.
- In 2017, we installed solar panels at our manufacturing site in Gorinchem, the Netherlands.
- Corbion joined RE100, a collaborative, global initiative uniting more than 100 influential businesses committed to 100% renewable electricity.



Renewable electricity

Renewable Energy Certificates

		Coverage plan (%)					Coverage plan (MWh)					REC source
		2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	
Site	MWh/year	%	%	%	%	%	MWh/year	MWh/year	MWh/year	MWh/year	MWh/year	
CCP	14,506	100%	100%	100%	100%	100%	14,506	14,506	14,506	14,506	14,506	CPFL
CMO	13,706	100%	100%	100%	100%	100%	13,706	13,706	13,706	13,706	13,706	E.D.P.
CBL	15,927	0%	0%	50%	100%	100%	-	-	7,964	15,927	15,927	U.S.Wind Power
CGV	12,600	0%	0%	0%	0%	100%	-	-	-	-	12,600	U.S.Wind Power
CER	5,895	0%	0%	0%	0%	0%	-	-	-	-	-	U.S.Wind Power
CTW	5,646	0%	75%	100%	100%	100%	-	4,235	5,646	5,646	5,646	U.S.Wind Power
CTR	3,209	0%	75%	100%	100%	100%	-	2,407	3,209	3,209	3,209	U.S.Wind Power
CDT	1,621	0%	0%	0%	100%	100%	-	-	-	1,621	1,621	U.S.Wind Power
CGM	26,883	0%	25%	50%	50%	50%	-	6,721	13,441	13,441	13,441	NL Wind Power
CRA	41,558	0%	0%	0%	0%	0%	-	-	-	-	-	N/A
Site	MWh/year	%	%	%	%	%	MWh/year	MWh/year	MWh/year	MWh/year	MWh/year	
TOTAL	141,551	20%	29%	41%	48%	57%	28,212	41,574	58,472	68,057	80,657	

Renewable electricity

On site generation (implemented, in preparation, proposed)

Site	Year	Description	Output (kWh)
Gorinchem	2015	143 solar panels @ CRG building	30,500
Gorinchem	2017	462 solar panels @ 2 warehouses	114,805
Lenexa	2018	Solar panels new office	482,300
East-Rutherford	B2019	Solar panels	572,593
Grandview	B2019	Solar panels	

Renewable electricity

Solar panels at Corbion NL

	Warehouse	Material storage
# panels	342	120
Power generation capacity	87 kWp	30 kWp
Expected E-production	84.466 kWh	30.339 kWh



Renewable electricity

Solar panels at Corbion Lenexa, KS Office



- 58,000 sqft. Building, including 15,000 sqft. Lab
- Housing 200 employees
- Move in date Aug. 2018
- Installation of solar panels covering the roof of the building to be completed by Dec. 2018

Renewable electricity

Solar panels at Corbion Lenexa, KS Office

- The amount of energy produced from the system at Lenexa (482,300kWh) will offset our CO₂ output by ~359 metric tons/yr (EPA.gov)
- This is equivalent to:
 - 40,389 gallons of gas
 - 392,709 pounds of charcoal burned
 - 831 barrels of oil consumed
 - 879,745 miles driven in a car
 - 53.8 homes' electricity for one year



Energy - What's next for us?

PPA – Power Purchase Agreement

V(PPA) - *Virtual* Power Purchase Agreement

A long term approach for companies in search of renewable energy and carbon reduction commitments.

Benefits:

- Long-Term Price Stability
- Future Savings



Portfolio Evaluation Process

3rd Party working with us to look at our “Demand”



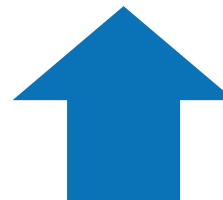
Can we reduce our energy needs?

- Physical Plant Efficiency
- LED Lighting
- Lighting Controls
- Refrigeration
- HVAC / Boiler
- CO2 Improvements



Load Manipulation

- Metering
- Cogeneration
- Solar
- Biogas
- Energy Storage
- LAAR ?



Plant Inventory



Corbion
Keep creating